AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, or claims in the application.

Listing of the Claims:

1. (Original) A composition useful for the prevention, inhibition or treatment Parkinson's disease in a mammal comprising:

a) live pigmented cells derived from the substantia nigra area of the brain of a mammal or the retinal pigmented epithelium layer or a mammal; and

b) a biodegradable polymer gel capable of photo-induced cross linking.

2. (Original) The composition of claim 1 wherein said biodegradable polymer gel further comprises a water soluble macromer having poly(ethylene glycol) di-ethylphosphatidyl (ethylene glycol) methacrylate.

3. (Original) The composition of claim 2 wherein said biodegradable polymer gel further comprises attachment proteins and growth factors to enhance the survival of pigmented cells after implantation.

4. (Original) The composition of claim 3 wherein said attachment proteins can be laminin, fibronectin, and RGDS.

5. (Original) The composition of claim 1 wherein the live pigmented cells are mixed with the polymer gel solution (10 to 20% W/V).

6. (Original) The composition of claim 5 wherein the concentration of live pigmented cells is at least 200,000 cells to about 800,000 cells.

7. (Original) The composition of claim 3 wherein said growth factors are bFGF and EGF.

8. (Original) The composition of claim 7 wherein said growth factors are conjugated to polycarbophyll.

9. (Original) The composition of claim 1 wherein said biodegradable polymer gel further comprises a water soluble comprising a Poly-vinyl alcohol.

10. (Original) A method for the prevention, inhibition or treatment Parkinson's disease in a mammal comprising:

a) harvesting pigmented cells (Human or bovine origin) from the brain stem (substantia nigra area) or from the retinal pigmented epithelium layer;

b) maintaining said cells on BCE-ECM extracellular matrix coated dishes and suitable growth media;

c) harvesting at least 200,000 of said cells;

d) preparing a mixture comprising a biodegradable polymer gel capable of photo-induced cross linking;

e) mixing the live pigmented cells with the polymer gel solution (10 to 20% W/V);

f) introducing into the brain of a mammal mixture of live pigmented cells with the polymer gel solution; and

g) photo-polymerizing the polymer gel using UV light with a photoinitiator.

11. (Original) The method of claim 10, wherein said biodegradable polymer gel further comprises attachment proteins and growth factors to enhance the survival of pigmented cells after implantation.

12. (Original) The method of claim 10, wherein said attachment proteins can be laminin, fibronectin, and RGDS, and wherein said growth factors are bFGF and EGF.

13. (Original) The method of claim 10, wherein said biodegradable polymer gel further comprises a water soluble comprising a Poly-vinyl alcohol.

14. (Original) The method of claim 10, wherein said introduction into the brain of a mammal comprises injecting into the brain of a mammal the mixture of live pigmented cells with the polymer gel solution using a needle means.

15. (Original) A composition useful for the prevention, inhibition or treatment a retinal cell disease in a mammal comprising:

a) live pigmented cells derived from the retina of a mammal; and

b) a biodegradable polymer gel capable of photo-induced cross linking.

16. (Original) The composition of claim 15 wherein said biodegradable polymer gel further comprises a water soluble macromer having poly(ethylene glycol) di-ethylphosphatidyl (ethylene glycol) methacrylate.

17. (Original) The composition of claim 16 wherein said biodegradable polymer gel further comprises attachment proteins and growth factors to enhance the survival of pigmented cells after implantation.

18. (Original) The composition of claim 17 wherein said attachment proteins can be laminin, fibronectin, and RGDS.

19. (Original) The composition of claim 15 wherein the live pigmented cells are mixed with the polymer gel solution (10 to 20% W/V).

20. (Original) The composition of claim 19 wherein the concentration of live pigmented cells is at least 200,000 cells to about 800,000 cells.

21. (Original) The composition of claim 17 wherein said growth factors are bFGF and EGF.

22. (Original) The composition of claim 21 wherein the growth factors are conjugated to polycarbophyll.

23. (Original) The composition of claim 15 wherein said biodegradable polymer gel further comprises a water soluble comprising a Poly(vinyl alcohol).

24. (Original) A method for the prevention, inhibition or treatment of a retinal cell disease in a mammal comprising:

a) harvesting pigmented cells (Human or bovine origin) from the retinal pigmented epithelium layer;

b) maintaining said cells on BCE-ECM extracellular matrix coated dishes and suitable growth media;

c) harvesting at least 200,000 of said cells;

d) preparing a mixture comprising a biodegradable polymer gel capable of photo-induced cross linking;

e) mixing the live pigmented cells with the polymer gel solution (10 to 20% W/V);

f) introducing into the retina of a mammal mixture of live pigmented cells with the polymer gel solution; and

g) photo-polymerizing the polymer gel using UV light with a photoinitiator.

25. (Original) The method of claim 24, wherein said biodegradable polymer gel further comprises attachment proteins and growth factors to enhance the survival of pigmented cells after implantation.

26. (Original) The method of claim 24, wherein said attachment proteins can be laminin, fibronectin, and RGDS, and wherein said growth factors are bFGF and EGF.

27. (Original) The method of claim 24, wherein said biodegradable polymer gel further comprises a water soluble comprising a Poly (vinyl alcohol).

28. (Original) The method of claim 24, wherein said introduction into the retina of a mammal comprises injecting into the retina of a mammal the mixture of live pigmented cells with the polymer gel solution using a needle means.